

Call	Page	Purpose
SETCOL	16.10	Modify values held in memory copy of colour lookup table without affecting the table itself
UPDATE	16.14	To make a particular page and view accessible for modification by PRINT, LINE or FILL
NEW	16.15	Transfer colour changes specified by SETCOL to colour lookup table

BASIC CALLS (Level 2 only)

CHARSIZE	17.2	Define magnification of plotted characters
COPY	17.4	Make a copy of a rectangle
PRINTMAP	17.5	Define characters for use by PRINT
MAP	17.5	Copy a rectangle from the screen to the printer
PAUSE	17.9	Define size of point printed from the screen
PRINTER	17.10	Define printer type and print density
POINT	17.14	Read the logical intensity of a point
SHADING	17.15	Define shading pattern
STYLE	17.16	Plot a character string

PREDEFINED VARIABLES

BE	9.6	Value=0.7188	V.6 only
PI	9.6	Value=3.14159	V.6 only

OPERATORS

+	String concatenation
*	Exponentiation
-	Negation
+/	Reciprocal of, division
MOD	Modulus (remainder)
+	Addition, subtraction
MIN	Minimum
MAX	Maximum
AND	Logical AND
OR	Logical OR
XOR	Logical Exclusive OR

CONTROL CHARACTERS

The control characters marked * act as toggles on the feature they control. Typing them either activates or deactivates the feature.

CTRL+A *	Toggle smooth scrolling (80x80 characters only)
CTRL+B *	Toggle outscrolling
CTRL+C	Return to CP/M (after check)
CTRL+E *	Echo-screen output to printer
CTRL+F	Reset Print (print buffer) check
CTRL/G	Clear screen, cursor bottom left
CTRL/H	Clear screen, cursor top left
CTRL/I	Terminate Line
CTRL/J *	Recommence output to printer
CTRL/K	Resume execution after CTRL-S
CTRL/L	Suspend program execution
CTRL/M	Delete current line
CTRL/N	Interrupt execution of program, start line
CTRL/O	Delete previous character

RESEARCH MACHINES
MICROCOMPUTER SYSTEMSExtended BASIC for
Dose and Strimell SystemsExtended BASIC Versions 5 & 6
REFERENCE CARD

PM02001 Revision 1

Command	Page	Purpose
ABS	9.2	Absolute value
AND	9.6	Logical AND operation
ASC	9.7	Convert character to number
ATN	9.8	Arctangent
ATTEN	11.0	Return at attention unit
AUTO	4.1	Automatic line numbering
BPE	10.1	Return to CP/M
CALL	10.8	Call machine language subroutines
CHAR	9.7	Current number to character
CLEAR	9.1	Delete variables, not string, files & cache space
CLOSE	10.0	Close files
CLOSE #	10.0	Close file
CLOSE INPUT	10.2	Close input files
CLOSE INPUT #	10.2	Close input file
CONT	4.8	Continue execution after CTRL-S, STOP or END
COPY	4.8	Copy a group of program lines
CSI	9.1	Cursor
CREATE	10.3	Open file for output
DATA	9.2	Define constants
DEF	9.2.1	User defined function or procedure
DELETE	4.3	Delete program lines
ERR	9.2	Dimension array
DIR	9.4	Get disc directory
END	5.1	End the line editor
FALSE	9.9	Statement executed if condition is not true
END	10.1	End of program
END	10.7	Generate end-of file condition
EOF #	10.0	Generate end-of file condition
ERASE	9.4	Erase file
ERR	9.8	Line number of last error
ERR	9.8	Error number of last error
ERR#	9.8	Queue error
EXCHANGE	9.2	Exchange values of two variables
EXP	9.8	Natural ant logarithm
FILE	9.10	Return fixed length string
FILE#	10.13	Return size of a random-access file
FN	9.2.1	User defined function
FOR	9.4	Set up loop
FOR#	10.13	Return current, EA, record number
FREE	9.1	Return free memory or string space
FRAME	9.5	Save program in internal format
GAT	10.0	Single character input
GATE	10.0	Single character input
GRAPH	11.3	Set graph or text mode
GOSUB	9.2	Call a subroutine
GOTO	9.2	Transfer control to another line
IF	9.8	Convert to hexadecimal
IF	9.2	Conditional test
INSTR	10.0	Forward optimisation for output
INP	10.4	Input from an I/O port
INPUT	7.1	Input data from the keyboard

Command	Page	Purpose	
INPUT #	12.4	Input data from a file	
INPUT LINE	7.2	Input, entire line from keyboard	
INPUT LINE, #	12.4	Input, entire line from file	
INSTR	9.8	Search for a substring	V.8 only
INT	9.8	Truncate to integer	
ISL	10.3	Isolate memory	V.8 only
LEFT	9.8	Return, left portion of a string	
LEN	9.8	Get length of a string	
LET	9.8	Assign to variable	
LINE	11.4	Show a line	
LIST	4.4	List program on console	
LIST	4.6	List program on printer	
LIST#	10.3	List variables on printer	
LIST#ALL	7.3	Remainder for printer	
LOAD	4.6	Load program from disc	
LOAD#	4.6	Check internal format file	
LOAD#GO	4.6	Load and execute program	
LOCAL	9.8	Define local variable for FN PROC	V.8 only
LOCAL PRINTER	4.6	Set up printer option	
LOCK	13.1	Prevent assembly where address occurs	V.8 only
LOG	9.8	Natural logarithm	
LOOKUP	12.3	Test whether file exists	
LPDS	7.3	Return current position of printer head	
LPUNT	7.4	Output to printer	
LRANGE	10.3	Set line number trace on printer	
LRB	10.3	Print variable trace	
LRWTH	7.3	Get width of printer	
MAR	9.4	Return the maximum of two values	V.8 only
MERGE	4.7	Merge programs	
MERGE#GO	4.7	Merge and execute programs	
MID	9.8	Return middle of a string	
MIN	9.8	Return the minimum of two values	V.8 only
MOD	9.8	Return a modulus value	V.8 only
MONITOR PRINTER	4.6	Set up printer option	
MUR	4.6	Clear all program statements and variables	
NEST	9.4	Return on beginning of a loop	
NOT	1.6	Logical NOT operator	
PULL	7.3	Get value for console	
ON	6.3	Indirect transfer of control	
ON ERROR	9.6	Trap console interrupts	
ON FILE	12.1	Trap end of file	
ON KEY	12.1	Trap end of file	V.8 only
ON OFFPRN	9.6	Trap over condition	
OPEN	12.6	Open file for reading	
OR	3.6	Logical OR operator	
OUT	10.3	Output to an I/O port	
PDS	10.4	Return data from a memory location	
POINT	10.3	Plot string, character, or dot	
POINT	10.4	Test screen location	
POINTS	10.6	Test screen locations	
POS	10.4	Change a memory location	
POS	7.4	Return current console cursor position	
PRINT	7.3	Output to console	
PRINT #	12.6	Output to a file	
PRINT#	4.6	Set up a printer option	
PROC	9.8	Use defined procedure	V.8 only
PRG	12.4	Save a line from file to disc	
QUOTE	12.6	Set string quotes on output	
RANDOM	10.4	Create or open a random access file	V.8 only

Command	Page	Purpose	
RANDOM#	10.3	Change seed used by random number generator	
READ	9.4	Read data from a DATA statement to a variable	
READ #	10.3	Read from a random access file	V.8 only
RENAME	10.3	Renamed or renamed	
RENAME	4.6	Renamed file	
RENUMBER	4.6	Renumber programs and change line number references	
RESET	6.10	Initialize timer	
RESTORE	9.4	Reset data pointer	
RESUME	9.6	Resume execution after error	
RETURN	9.2	Return control back from a subroutine	
RIGHT	9.8	Return right portion of a string	
RLN	13.14	Return record length of RA file	V.8 only
RND	9.3	Random number	
RPOS	12.14	Remaining space in a record	V.8 only
RUN	4.10	Start execution of program	
SAVE	4.10	Write a copy of the program to a disc file	
SDM	9.3	Get sign of expression	
SEL	9.1	Size	
SPACES	9.10	Returns a string of spaces	V.8 only
SPC	7.4	Print spaces	
SGR	9.8	Separate row	
STEP	9.4	Set FOR increment	
STOP	10.3	Terminate program execution	
STR\$	9.8	Convert value to string	
STRLEN	9.11	Returns a repeated string	V.8 only
TAB	7.4	Tabulate column	
TAN	9.1	Tangent	
TEXT	11.3	Set text mode	
THEN	9.2	Statement executed if condition is true	
TO	9.4	Set upper limit in FOR statement	
TRACE	10.3	Set line number trace	
TRP	12.12	Return data type from RA file	V.8 only
UNLOCK	12.11	Allow access by other software users	V.8 only
UNLOC	9.11	Format a specification for input	V.8 only
USR	10.7	User provided machine code routine	
VAL	9.7	Convert string to number	
VARIABLE	10.4	Get variable address	
WAIT	10.3	Wait for input status bit	
WIDTH	7.3	Set width of console	
WRITE #	12.6	Write to a random access file	V.8 only
WRN	9.8	Exclusive OR of two values	V.8 only
?	7.4	Equivalent to PRINT	
'	7.1	' ' ' form of comment	V.8 only
command ,	4.2	' , ' form of line number	V.8 only

HARD CALLS

Command	Page	Purpose
CLEAR	10.2	Clear current page and view
COLOR	10.3	Set color and intensity on video display that corresponds to the specified logical intensity (Specify the page and view to be displayed)
DISPLAY	10.3	Specify the page and view to be displayed
FILL	10.6	Fill the given rectangle
GRAPH	10.7	Load HPG memory from a disc file
GRAPH	10.8	Save HPG memory to a disc file
LINE	10.8	Draw a line from the current position to given point
OFFPRN	10.10	Change cursor direction of bottom left corner of screen
POINT	10.10	Plot a point on the screen
RESOLUTION	10.12	Select resolution and number of bits/pixel